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In re Application of	
Application Number: 07/155,943	Filed: 2-16-88
Art Unit	Examiner

Paper No. #6

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US005284931A

United States Patent [19]

Springer et al.

[11] Patent Number: 5,284,931

[45] Date of Patent: Feb. 8, 1994

[54] INTERCELLULAR ADHESION MOLECULES, AND THEIR BINDING LIGANDS

[75] Inventors: Timothy A. Springer, Newton, Mass.; Robert Rothlein; Steven D. Marlin, both of Danbury, Conn.; Michael L. Dustin, University City, Mo.

[73] Assignee: Dana Farber Cancer Institute, Boston, Mass.

[21] Appl. No.: 515,478

[22] Filed: Apr. 27, 1990

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 456,647, Dec. 22, 1989, which is a continuation-in-part of Ser. No. 45,963, May 4, 1987, which is a continuation-in-part of Ser. No. 115,798, Nov. 2, 1987, which is a continuation-in-part of Ser. No. 155,943, Feb. 16, 1988, which is a continuation-in-part of Ser. No. 189,815, May 3, 1988, which is a continuation-in-part of Ser. No. 250,446, Sep. 28, 1988, which is a continuation-in-part of Ser. No. 324,481, Mar. 16, 1989, which is a continuation-in-part of Ser. No. 373,882, Jun. 30, 1989, which is a continuation-in-part of Ser. No. 456,647, Dec. 22, 1989.

[51] Int. Cl.[5] A61K 39/395

[52] U.S. Cl. 424/85.8; 530/388.22; 530/395; 530/808; 530/868; 514/8

[58] Field of Search 424/85.8, 85.91; 530/387, 389, 808, 388.22

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[57] ABSTRACT

Pharmaceutical compositions comprising antibodies to intercellular adhesion molecule-1 (ICAM-1 or CD54) are useful in methods of decreasing the severity of inflammation associated with the adhesion of leukocytes to cells bearing ICAM-1. Treatment with anti-ICAM-1 antibodies reduced the severity of inflammation associated with acute organ or tissue rejection and prolonged allograft survival time. Such compositions may optionally contain other immunsuppressive agents.

11 Claims, 25 Drawing Sheets